

WHAT IS CLAIMED IS:

1. A modularized circuit design information generating tool, comprising

a circuit module design database including circuit design information of functional modules of at least two categories, wherein at least one category of said functional modules includes design information of circuit modules of at least two different specifications;

an element selection means allowing user to select suited circuit modules from said circuit module design database according to particular specifications of functional elements to be included into circuit to be designed and to include circuit design information corresponding to said selected circuit modules into circuit design information file of said circuit to be designed;

a circuit module connection means to define connections between or among selected circuit modules according to features of each selected circuit module;

a memory to store circuit design information of all selected circuit modules and information of connections between and/or among the selected circuit modules, both of circuit under design or circuit as designed; and

a file converting means to convert circuit design information so obtained into an applicable format.

2. The modulated circuit design information generating tool according to claim 1, wherein said circuit module design information database comprises a communications tool connectable to a remote database.

3. The modulated circuit design information generating tool according to claim 1,

wherein said circuit design information database comprises a group of circuit design information file for central processing unit, a group of circuit design information file for processing element, a group of design information file for memory circuit and a group of circuit design information file for interfacing circuit.

5 4. The modulated circuit design information generating tool according to claim 3, wherein said group of circuit design information file for central processing unit comprises core circuit design information for at least two central processing units different in operational speed, length in instruction or bus width with each other.

5. The modulated circuit design information generating tool according to claim 3,
10 wherein said group of circuit design information for processing circuit comprises circuit design information for at least two processing elements different in function.

6. The modulated circuit design information generating tool according to claim 5, wherein said group of circuit design information for processing circuit comprises circuit design information for at least one codec, at least one filter and at least one
15 modulator.

7. The modulated circuit design information generating tool according to claim 3, wherein said group of circuit design information for memory circuit comprises circuit design information for at least two types of memory different in memory space.

8. The modulated circuit design information generating tool according to claim 3,
20 wherein said group of circuit design information for interfacing circuit comprises circuit design information for at least two interfacing circuits different in function.

9. The modulated circuit design information generating tool according to claim 8, wherein said group of circuit design information for interfacing circuit comprises circuit design information for at least one A/D converter, at least D/A converter, a
25 USB interface circuit and a PCMCIA interface circuit.

10. A modularized circuit design information generating method, comprising:

selecting suited circuit modules according to particular specifications of functional elements to be included into circuit to be designed from a circuit module design database including circuit design information of functional modules of at least two categories, wherein at least one category of said functional modules includes design information of circuit modules of at least two different specifications

including circuit design information corresponding to said selected circuit modules into circuit design information file of said circuit to be designed;

defining connections between or among selected circuit modules according to features of each selected circuit module; and

converting circuit design information so obtained into an applicable format.

11. The modulated circuit design information generating method according to claim 10, wherein said circuit module design information database comprises a communications tool connectable to a remote database.

12. The modulated circuit design information generating method according to claim 10, wherein said circuit design information database comprises a group of circuit design information file for central processing unit, a group of circuit design information file for processing element, a group of design information file for memory circuit and a group of circuit design information file for interfacing circuit.

13. The modulated circuit design information generating method according to claim 12, wherein said group of circuit design information file for central processing unit comprises core circuit design information for at least two central processing units different in operational speed, length in instruction or bus width with each other.

14. The modulated circuit design information generating method according to claim 12, wherein said group of circuit design information for processing circuit comprises

circuit design information for at least two processing elements different in function.

15. The modulated circuit design information generating method according to claim 14, wherein said group of circuit design information for processing circuit comprises circuit design information for at least one codec, at least one filter and at least one
5 modulator.

16. The modulated circuit design information generating method according to claim 12, wherein said group of circuit design information for memory circuit comprises circuit design information for at least two types of memory different in memory space.

10 17. The modulated circuit design information generating method according to claim 12, wherein said group of circuit design information for interfacing circuit comprises circuit design information for at least two interfacing circuits different in function.

18. The modulated circuit design information generating method according to claim 17, wherein said group of circuit design information for interfacing circuit comprises
15 circuit design information for at least one A/D converter, at least D/A converter, a USB interface circuit and a PCMCIA interface circuit.

19. A memory stored with circuit design information generated from the method of any of claims 10-18.

20. A circuit prepared with circuit design information generated from the method of
20 any of claims 10-18.